

Notice of Allowability

Application No.

10/726,095

Examiner

Terry L. Englund

Applicant(s)

CHOI ET AL.

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to IDS (Dec 12, 2005) and Amdt (Jan 5, 2006).
2. ☒ The allowed claim(s) is/are 1-10, and 28-31 (now renumbered as 2-10, 1, and 11-14, respectively for printing purposes).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. ✓
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 12122005
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


TIMOTHY P. CALLAHAN
SUPERVISORY PATENT EXAMINER

TECHNOLOGY CENTER 2800

Part of Paper No./Mail Date 01172006

DETAILED ACTION

Response to Amendment/IDS

The amendment submitted on Jan 5, 2006, and the IDS submitted on Dec 12, 2005, have been reviewed and considered with the following results:

Amended claim 2 overcame the rejection of claims 2-7 under 35 U.S.C. 112 as described in the previous Office Action. Therefore, those rejections have now been withdrawn.

The amended claims overcame all the prior art rejections described in the previous Office Action. These rejections include: 1) claims 28 and 30 under 35 U.S.C. 102(b), with respect to Park; 2) claims 28 and 31 under 35 U.S.C. 102(e) with respect to Shokouhi et al.; and 3) claims 1-9, and 28-29 under 35 U.S.C. 103(a) with respect to Jang/Yamasaki. None of these references clearly shows or discloses the relationships between the first/second operating mode signals and the three different frequency ranges as recited within independent claim 10 (upon which claims 1-9 now depend), or as now recited within independent claim 28, upon which claim 31 depends. Therefore, all of the prior art rejections cited in the previous Office Action have been withdrawn.

The various references, cited on the IDS, show circuitry that provides at least one reference (or internal) voltage, wherein some references even provide a means for allowing the output voltage(s) to be adjusted/trimmed. However, none of these references clearly shows or discloses the relationships between the frequency ranges and the operating mode signals that are recited within each of the present application's independent claims. [Note: The Kobayashi et al. reference was lined through as it had been previously considered (i.e. see reference B on paper no. 04272005's PTO-892).]

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

None of the prior art references reviewed and considered shows or discloses the (reference) voltage generating circuit as recited within either of independent claims 10 or 28. Although various references show/disclose circuitry that includes what can be considered a distributing unit, clamping control unit, and control unit; or a mode means, comparison means, and adjusting means, none of the reference(s) shows or discloses the relationships between the first/second operating mode signals and the frequency ranges as recited within each of claims 10 (upon which claims 1-9 now depend) and 28 (upon which claims 29-31 depend). More specifically, none of the references clearly shows or discloses a low operating frequency range when first/second operating mode signals are at a first level; a high operating frequency range when the first/second operating mode signals are at a second level; and an intermediate frequency range when one of the first/second operating mode signals is at the first level, and the other is at the second level. Since there is no strong motivation to modify or combine any prior art reference(s) to ensure those specific relationships between the first/second operating mode signals and the three different frequency ranges are met, the claims are deemed patentably distinct over the prior art of record.

Therefore, claims 1-10, and 28-31 are allowable, and have been renumbered as claims 2-10, 1, and 11-14, respectively for printing purposes. The renumbering takes into account claims 1-9 are now dependent on independent claim 10, and that claims 11-27 had been previously cancelled.

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Any comments considered necessary by the applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication, or previous communications, from the examiner should be directed to Terry L. Englund whose telephone number is (571) 272-1743. The examiner can normally be reached Monday-Friday from 7 AM to 3 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan, can be reached on (571) 272-1740.

The new central official fax number is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1562.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Terry L. Englund

17 January 2006